

CLAIMS

1. A handling device for returnable packagings comprising a feeding device (A), having at least one inlet feed opening (16), a detection means (3) arranged in connection with said feeding device (A), for detection of at least one property of a returnable packaging present in the feeding device (A), in order to control/affect the operation in at least one subsequent unit (D; E), characterised in that a lock unit (B) is arranged before said subsequent unit (D; E), which lock unit (B) comprises a first (1) and a second (2) stop means, arranged to control that only one returnable packaging at a time is present at said second stop means (2).

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2. A handling device according to claim 1, characterised in that the first stop means (1) is arranged to be closed when a returnable packaging is in a position between the first (1) and the second (2) stop means.

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3. A handling device according to claim 2, characterised in that the first stop means (1) is arranged to be openable when there is no returnable packaging present between the first (1) and the second (2) stop means, preferably by use of a detector (11) arranged between the first (1) and the second (2) stop means, respectively.

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4. A handling device according to any one of the preceding claims, characterised in that the second stop means (2) is arranged to be open when a positioning means (6) is empty and in position to position/retain a returnable packaging for detection, by the detection means (3).

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5. A handling device according to any one of the preceding claims, characterised in that the feeding device (A) is continuously acting on returnable packagings, preferably by gravity.

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6. A handling device according to any one of the preceding claims, characterised in that a sorting unit (E) is arranged after the feeding device (A), which sorting unit (E) is arranged to guide a returnable packaging in at least two different directions.

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7. A handling device according to claim 6, characterised in that the sorting device (E) is arranged to be controlled by a control signal based on information

from the detection means (3).

- 5 8. A handling device according to any one of the preceding claims, characterised in that a compression unit (D) is arranged after the feeding device (A), preferably before a sorting unit (E).
- 10 9. A handling device according to claim 8, characterised in that said compressing unit (D) is arranged to axially compress a returnable packaging, preferably by provision of at least one positioning means (41; 51).
- 15 10. A handling device according to any one of the preceding claims, characterised in that at least one stop/positioning means (1, 2, 6) is arranged in the form of a holder-on arranged to position a returnable packaging by preventing its continued movement through the feeding device (A).
- 20 11. A method in connection with the handling of returnable packagings, comprising feeding of a returnable packaging through a feeding device (A), detection of at least one property of a returnable packaging and sorting of the returnable packaging dependent of information from said detection, characterised in that the returnable packaging is compressed before the sorting of the returnable packaging takes place.
- 25 12. A method according to claim 11, characterised in that all returnable packagings pass through a compressing unit before sorting.
13. A method according to claim 12, characterised in that both plastic and metal packagings are compressed in said compressing unit.

CLAIMS

1. A handling device for returnable packagings comprising a feeding device (A),
having at least one inlet opening (16), a first detection device (11) arranged in
connection with said feeding device (A), means (3) for detection of at least one
5 property of the material of a returnable packaging, in order to control/affect the
operation in a subsequent sorting unit (E), wherein a lock unit (B) is arranged
before said sorting unit (E), and a compression unit (D), wherein said lock unit
(B) comprises a first (1) and a second (2) stop device, arranged to control that
only one returnable packaging at a time is present at said second stop device (2),
10 characterised in that said means comprises a second detection device (3)
arranged within said feeding device (A), which second detection device (3)
includes a gauge arranged to distinguish between metal and plastic, and that said
sorting unit (E) is moveable arranged, between different positions, based on a
control signal from said second detection device (3), in order to dependent of its
15 material direct the returnable packaging into one of at least two different
directions.
2. A handling device according to claim 1, characterised in that the first stop
device (1) is arranged to be closed when a returnable packaging is in a position
20 between the first (1) and the second (2) stop device.
3. A handling device according to claim 2, characterised in that the first stop
device (1) is arranged to be open able when there is no returnable packaging
present between the first (1) and the second (2) stop device, preferably by use of
25 a detector (11) arranged between the first (1) and the second (2) stop device,
respectively.
4. A handling device according to any one of the preceding claims,
characterised in that the second stop device (2) is arranged to be open
30 when a positioning device (6) is empty and in position to position/retain a
returnable packaging for detection, by the second detection device (3).
5. A handling device according to any one of the preceding claims,
characterised in that the feeding device (A) is continuously acting on
35 returnable packagings, preferably by gravity.

6. A handling device according to any one of the preceding claims, characterised in that a compression unit (D) is arranged after the feeding device (A) and before a sorting unit (E).
- 5 7. A handling device according to any one of the preceding claims, characterised in that at least one stop/positioning device (1, 2, 6) is arranged in the form of a holder-on arranged to position a returnable packaging by preventing its continued movement through the feeding device (A).
- 10 8. A handling device according to any of preceding claims, characterised in that said second gauge comprises at least one inductive gauge (3).
9. A method in connection with the handling of returnable packagings, comprising feeding device (A), compressing said returnable packaging in a subsequent
15 compression unit (D) and sorting of the returnable packaging in a sorting unit (E) that is subsequent to the compression unit (D), characterised in that the detection of at least one property of material of the returnable packaging is performed in the feeding device (A) in order to control the subsequent sorting of the returnable packaging and that both plastic and metal packagings are
20 compressed in the same compression unit (D).
10. A method according to claim 9, characterised in that subsequent to the sorting unit (E) there is arranged a magnetic sorting device, arranged to sort an
25 aluminium can from other metal cans.